CLAIMS

1. A rotary compressor, comprising:

a compression mechanism (**20**) including a cylinder (**21**) having a cylinder chamber (C) (**C1**, **C2**), a piston (**22**) accommodated in the cylinder chamber (C) (**C1**, **C2**) eccentrically with respect to the cylinder (**21**), and a blade (**23**) arranged in the cylinder chamber (C) (**C1**, **C2**) and defining the cylinder chamber (C) (**C1**, **C2**) into a first chamber (**C-Hp**) (**C1-Hp**, **C2-Hp**) and a second chamber (**C-Lp**) (**C1-Lp**, **C2-Lp**), at least one of the cylinder (**21**) and the piston (**22**) rotating eccentrically as an eccentric rotation body (**21**, **22**);

a drive shaft (**33**) for driving the compression mechanism (**20**);

a pressing mechanism (**60**) for bringing a cylinder side end plate (**26A**), which is provided at one end in an axial direction of the cylinder chamber (C) (**C1**, **C2**) and faces an end face in an axial direction of the piston (**22**), and a piston side end plate (**26B**), which is provided at the other end in the axial direction of the cylinder chamber (C) (**C1**, **C2**) and faces an end face in an axial direction of the cylinder (**21**), close to each other in an axial direction of the drive shaft (**33**); and

a casing (**10**) for accommodating the compression mechanism (**20**), the drive shaft (**33**), and the pressing mechanism (**60**),

wherein the pressing mechanism (**60**) is eccentric away from the center of the end plate (**26A**, **26B**) of the eccentric rotation body (**21**, **22**), and the pressing mechanism (**60**) generates axial-direction pressing force of which center is eccentric away from the center of the drive shaft (**33**).

2. The rotary compressor of Claim 1,

wherein the cylinder chamber (C) is in a circular shape in section at a right angle in an axial direction, and

the piston (**22**) is formed of a circular piston (**22**) arranged in the cylinder chamber

(C).

3. The rotary compressor of Claim 1,

wherein the cylinder chamber (**C1**, **C2**) is in an annular shape in section at a right angle in an axial direction, and

the piston (**22**) is formed of an annular piston (**22**) arranged in the cylinder chamber (**C1**, **C2**) and defining the cylinder chamber (**C1**, **C2**) into an outer cylinder chamber (**C1**) and an inner cylinder chamber (**C2**).

4. The rotary compressor of Claim 3

wherein the piston (**22**) is in a C-shape into which a part of an annular shape is divided,

a swing bush (**27**) is provided so as to be slidably held at the divided part of the piston (**22**), a blade groove (**28**) being formed therein for holding a blade (**23**) so as to allow the blade (**23**) to move back and forth, and

the blade (**23**) is inserted in the blade groove (**28**) so as to extend from a wall face on an inner peripheral side to a wall face on an outer peripheral side of the annular cylinder chamber (**C1**, **C2**).

5. The rotary compressor of Claim 1,

wherein discharge ports (**45**, **46**) for discharging fluid compressed in the cylinder chamber (**C1**, **C2**) to outside of the compression mechanism (**20**) are formed in the compression mechanism (**20**), and

the pressing mechanism (**60**) generates the axial-direction pressing force of which center is eccentric to the discharge ports (**45**, **46**) away from the center of the end plate (**26A**, **26B**) of the eccentric rotation body (**21**, **22**).

6. The rotary compressor of Claim 1,

wherein a support plate (**17**) is arranged along a face opposite a face on the cylinder chamber (**C1**, **C2**) side of the end plate (**26A**, **26B**) of the eccentric rotation body (**21**, **22**) in the casing (**10**),

a sealing ring (**29**) for defining an opposing part (**61**, **62**) between the end plate (**26A**, **26B**) and the support plate (**17**) inside and outside in a radial direction into a first opposing section (**61**) and a second opposing section (**62**) is arranged eccentrically away from the center of the eccentric rotation body (**21**, **22**) in one of the end plate (**26A**, **26B**) of the eccentric rotation body (**21**, **22**) and the support plate (**17**), and

the pressing mechanism (**60**) allows pressure of fluid discharged outside the compression mechanism (**20**) to work on the first opposing section (**61**) in the end plate (**26A**, **26B**).

7. The rotary compressor of Claim 6,

wherein the sealing ring (**29**) is fitted in an annular groove (**17b**) formed in one of the eccentric rotation body (**21**, **22**) and the support plate (**17**).

8. The rotary compressor of Claim 1,

wherein a slit (**63**) is formed at a part eccentric away from the center of the eccentric rotation body (**21**) in a face portion opposite a face on the cylinder chamber (**C1**, **C2**) side of the end plate (**26A**) of the eccentric rotation body (**21**), and

the pressing mechanism (**60**) allows pressure of fluid discharged outside the compression mechanism (**20**) to work on the slit (**63**).

9. The rotary compressor of Claim 1,

wherein a groove (**65**) and a through hole (**64**) are formed, the groove (**65**) being formed in a portion eccentric away from the center of the eccentric rotation body (**21**) on a

face opposite a face on the cylinder chamber (**C1**, **C2**) side of the end plate (**26A**) of the eccentric rotation body (**21**) and the through hole (**64**) being formed in the end plate (**26A**) for allowing the groove (**65**) to communicate with the cylinder chamber (**C1**, **C2**), and

the pressing mechanism (**60**) introduces part of fluid compressed in the cylinder chamber (**C1**, **C2**) into the groove (**65**) through the through hole (**64**) to allow the pressure of the fluid to work on the groove (**65**).

10. The rotary compressor of Claim 1, further comprising:

a sealing mechanism (**71**, **72**, **73**) for preventing leakage of fluid in at least one of a first axial direction gap between an end face in the axial direction of the cylinder (**21**) and the piston side end plate (**26B**) and a second axial direction gap between an end face in the axial direction of the piston (**22**) and the cylinder side end plate (**26A**).

11. The rotary compressor of Claim 10,

wherein the sealing mechanism is a chip seal (**71**, **72**, **73**) provided at least one of the first axial direction gap and the second axial direction gap.